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1985
Basin Electric
Power Cooperative
Montana long
range plan

L. J. Drynan
W. J. Opitz

BASIN ELECTRIC
POWER COOPERATIVE

# MONTANA LONG RANGE PLAN

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**BASIN ELECTRIC POWER COOPERATIVE**

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BISMARCK, NORTH DAKOTA 58501-9990
PHONE 701/223-0441 · TWX 910/677-2342

March 29, 1985

Mr. Larry Fasbender, Director
Department of Natural
Resources & Conservation
32 South Ewing
Helena, MT 59601

Dear Mr. Fasbender:

Pursuant to the provisions of the Major Facility Siting Act and regulations adopted thereunder, Basin Electric Power Cooperative hereby submits its 1985 Long Range Plan.

Enclosed are an original and twelve (12) copies of the plan.

Sincerely,

Robert M. McPhail

nw

Enclosures

BOARD OF DIRECTORS

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**JAMES L. GRAHL**, General Manager

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# I. INTRODUCTION

Basin Electric Power Cooperative, headquartered in Bismarck, ND, is a regional rural electric wholesale power supplier. Basin Electric's service area includes all or portions of eight states: Montana, Wyoming, Colorado, North Dakota, South Dakota, Nebraska, Minnesota and Iowa.

Central Montana Electric Power Cooperative, Inc., Billings, MT, and Upper Missouri G&T Electric Cooperative, Sidney, MT, are Class A members of Basin Electric that provide wholesale electric power in Montana. These cooperatives serve eighteen Montana rural electric distribution cooperatives.

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## II. FACILITIES -- CONSTRUCTED/REMOVED

General location, size and type of facilities to be owned and operated by Basin Electric whose construction is projected to commence during the ensuing 10 years, as well as those facilities to be removed from service during the ensuing period:

Basin Electric has no current plans for facilities in Montana on which construction is projected to commence during the next 10 years.

No Basin Electric generating stations or transmission lines are expected to be removed from service within the next ten years.

## III. REGIONAL COORDINATION ACTIVITIES

A description of efforts by Basin Electric to coordinate the plan with other utilities or persons to provide a coordinated regional plan to meet the energy needs of the region:

Basin Electric Power Cooperative supports and encourages a coordinated regional plan to meet energy needs.

Following are examples of the Cooperative's involvement in regional coordination:

### Missouri Basin Systems Group (MBSG)

In 1963, Basin Electric, along with over 100 other rural electric cooperatives and municipal electric systems in the Missouri River Basin, and the U.S. Bureau of Reclamation (USBR), formed the Missouri Basin Systems Group (MBSG) and established a Joint Transmission System (JTS). Through a contract called "the Pooling Agreement," MBSG members agreed to plan, pool and coordinate the use of power supply facilities required by individual members of the group. Membership in the MBSG is open to all USBR "preference customers." Non-members are continually informed of MBSG activities and encouraged to join the association so that all consumer-owned systems in the Missouri River Basin might have a direct voice in regional planning and pooling.

The Joint Transmission System today consists of approximately 9,300 miles of regional transmission lines. Operated by the Department of Energy's Western Area Power Administration (Western) this transmission system is jointly utilized by the consumer-owned systems and serves as the "backbone" of the regional power grid.

Under arrangements of a 35-year contract, Basin Electric pays the federal government for leasing capacity in the JTS. These arrangements strengthen the region's electrical delivery system, minimize duplication of transmission facilities and result in savings to the federal government and consumers.

Included in the JTS are Basin Electric's two 345 kilovolt (KV) transmission lines from the Leland Olds Station in North Dakota to the WAPA terminal substation at Watertown and Ft. Thompson, SD, the 345/500 KV line from the Antelope Valley Station to Huron, SD, and the Antelope Valley Station to Leland Olds 345 KV line. Also included are the Leland Olds to Logan, ND 230 KV line, a Logan to Montana Dakota Utilities Co.'s (MDU) Kenmare 115 KV substation and several 230/115 substations interconnecting the JTS.

Systems interested in joint planning indicate to MBSG their needs for future power and energy. These requirements are considered as part of the regional system as if they were the requirements of a single integrated utility system. Studies are conducted to indicate needs of the group. All factors, including the cost of capacity, fuel, water, pollution control facilities, financing and transmission to deliver the output where it is required are considered.

One of the primary activities of the MBSG is the Missouri Basin Power Project (MBPP), a program to meet the energy requirements of a number of MBSG members through the mid-1990s. Basin Electric receives 44.34 percent or 732 megawatts of MBPP capacity.

The MBPP includes Laramie River Station -- three 550 (net) MW generating units located in southeastern Wyoming -- and associated transmission facilities. Unit 1 was declared commercial July 1, 1980; Unit 2 July 1, 1981, and Unit 3 November 1, 1982.

MAPP, IPP, WSCC

Basin Electric Power Cooperative participates on various committees which review the transmission adequacy and plans of area utilities as a function of the Mid-Continent Area Power Pool (MAPP), Inland Power Pool (IPP) and Western System Coordination Council (WSCC).

Interconnection and Common Use Agreement

Member cooperatives of Basin Electric have a common service area with Montana Dakota Utilities Co. in the western half of North Dakota and a portion of Montana and South Dakota. In order to avoid the duplication of transmission facilities, an agreement was entered into on January 1, 1972, that provides for joint use and construction of transmission facilities. This agreement provides for studies to be performed every two years to determine what additional transmission will be required to meet area load growth. The agreement calls for the sharing of facilities on the basis of each utility's respective projected loads.

The following facilities are a part of coordinated planning with Montana Dakota Utilities Co.:

a) Leland Olds-Mallard 230 KV Line
b) Logan (ND)-Tioga (ND) 230 KV Line
c) Logan - Kenmare 115 KV Line
d) Bowdle - Ipswich 41.6 KV Line
e) Wishek (ND) Junction 230/115 KV Substation
f) Northwest Mandan (ND)-New Salem (ND) 115 KV Line
g) Medora (ND) 230/41.6 KV, 230/57 KV Substation
h) Herbert Weber (ND) 230/41.6 KV Substation
i) New England (ND)-Mott (ND)-Elgin (ND) 115 KV Line
j) Bowman (ND) 230/41.6 KV, 230/57 KV Substation
k) Hettinger (ND) 230/115 KV Substation
l) Culbertson (MT) 115/57 KV Substation

In addition, as part of an agreement reached between Basin Electric and Saskatchewan Power Corporation (SPC) allowing for the seasonal exchange of up to 100 MW of electricity starting in the early 1980s, a 230 KV transmission line was built from Tioga, ND to Saskatchewan, Canada. This line was routed so that it could be tapped for future use by MDU and member systems of Basin Electric. The Tioga 230/115 KV Substation was completed early in 1984 and provides additional service to Northwestern North Dakota.

In addition to the above-mentioned groups Basin Electric currently is involved in pooling, interconnection and exchange agreements with the following:

a) Rocky Mountain Power Pool - located west of the east-west ties.
b) Black Hills Power Company. (pages 7-12)
c) Nebraska Public Power and Light District. (pages 13-16)
d) United Power Association. (pages 17-20)
e) Western Area Power Administration. (pages 21-25)
f) Saskatchewan Power Corporation. (pages 26-27)
g) Northern States Power Company (page 28)

Contracts for MBSG, MAPP, the Interconnection and Common Use Agreement with MDU, and the Revised Inland Power Pool are contained in an exhibit book on file in the Energy Division of the Montana Department of Natural Resources and Conservation. Information on items "b" through "g" follows.

Contract for Electric Transmission Service between Black Hills Power and Light Company, Rushmore Electric Power Cooperative and Basin Electric Power Cooperative dated March 12, 1975

---

A) Obligation:

This agreement provides for the construction of additional electric facilities needed by the parties to fulfill their respective utility responsibilities, to furnish transmission service for Rushmore for the term of the contract, and to provide for compensation to Black Hills. This contract defines the contract path after the integration of delivery of electric power and energy by Black Hills for Rushmore to be from Stegall, Nebraska, to points of delivery of Black Hills' system to Rushmore South Dakota and Rushmore Wyoming. The integration of Black Hills' system into the interconnected western system allows alternative displacement paths of delivery in fulfillment of the defined contract path.

B) List of all parties to the Agreement:

The agreement was executed between Black Hills Power and Light Company, Rushmore Electric Power Cooperative and Basin Electric Power Cooperative.

C) Time period:

Within the meaning of this contract, the interim term is the period of time commencing at the time the Wyodak temporary substation is in operation and ending January 1, 1977. The term of this contract commenced May 19, 1975 and shall terminate 12:01 AM, May 1, 2007.

D) Amount of Electrical Energy and Timing or Rate of Delivery:

The total delivery of power by Black Hills to Rushmore shall never exceed 160,000 kilowatts of capacity without the mutual agreement of the parties regardless of the source of that power.

Energy adjustment during ultimate term: All load-pattern energy, regardless of its source, to be delivered to Black Hills for delivery to Rushmore during the ultimate term, shall be adjusted for transmission and transformation losses under the following formula:

(1) Delivery at Wyodak with metering at 230,000 volts:

(a) During the period of time the Wyodak plant is in operation, the energy to be delivered to Black Hills shall equal the metered kilowatt hours times 1.02. (b) During the time the Wyodak plant is not in operation, the energy to be delivered to Black Hills shall equal the metered kilowatt hours times 1.05.

(2) Delivery at Wyodak with metering at 69,000 volts:

(a) With the Wyodak plant in operation, the energy to be delivered to Black Hills shall equal metered kilowatt hours times 1.01 times 1.02. (b) With the Wyodak plant not in operation, the energy to be delivered to Black Hills shall equal metered kilowatt hours times 1.01 times 1.05.

(3) For the purpose of the adjustment to be made in subparagraphs (1) and (2) in this section, the energy deemed to be delivered while the Wyodak plant is in operation shall be the same percentage of total kilowatt hours metered during a billing month as the percentage calculated by dividing the hours in the billing month during which the

plant is in operation by the total hours in the billing month. The energy deemed to be delivered while the Wyodak plant plant is not in operation shall be the percentage of total kilowatt hours metered during a billing month as calculated by dividing the hours in the billing month during which the plant was not in operation by the total hours in the billing month.

(4) Where delivery of electric power and energy is delivered and metered at 230,000 volts at a location other than at Wyodak, the electric energy to be delivered to Black Hills shall equal the metered kilowatt hours times 1.05.

(5) Where electric power and energy is delivered at a location other than at Wyodak at 230,000 volts with metering at 69,000 volts, the electric energy to be delivered to Black Hills shall equal the metered kilowatt hours times 1.01 times 1.05.

(6) Where the delivery of electric power and energy is at a place other than at Wyodak at 69,000 volts with metering at 69,000 volts, the electric energy to be delivered to Black Hills shall equal the metered kilowatt hours times 1.01 times 1.07.

(7) Where electric power and energy is delivered by Black Hills at places than Wyodak and at 69,000 volts, but with metering at a lower voltage, the electric energy to be delivered to Black Hills shall equal metered kilowatt hours times 1.02 times 1.07.

E) Financial Agreements:

Compensation for transmission service for Rushmore's South Dakota members during interim term: Commencing with the date of this contract and continuing through the interim term of this contract, Rushmore shall pay Black Hills one mill per kilowatt hour adjusted for losses delivered to Rushmore South Dakota as set forth in present contracts between Rushmore and Black Hills.

Compensation for transmission service to Rushmore Wyoming during interim term: No compensation shall be paid by Rushmore to Black Hills for delivery of electric power and energy to Rushmore Wyoming during the interim term of this contract.

Compensation to be paid by Basin Electric to Black Hills during ultimate term for transmission service to Rushmore South Dakota: During the ultimate term of this contract, Basin Electric shall pay to Black Hills one mill per kilowatt hour for all load-pattern energy (regardless of source) delivered pursuant to this contract to Rushmore South Dakota (subject to loss adjustments herein provided) less the amount paid to Black Hills by the Bureau for the Bureau energy sold to Rushmore South Dakota and contractually delivered through Black Hills' system to Rushmore South Dakota.

Compensation to be paid by Basin Electric to Black Hills during ultimate term for Rushmore Wyoming transmission service: During the ultimate term of this contract, Basin Electric shall pay to Black Hills one mill per kilowatt hour for all load-pattern energy associated with all of Rushmore

Wyoming's load up to its first 150,000 kilowatts of demand (regardless of the energy's source, place of delivery, or who makes delivery); provided however, no compensation shall be paid Black Hills for energy delivered by the Bureau to Black Hills prior to January 1, 1986, for delivery to Rushmore Wyoming associated with a maximum demand of 4600 kilowatts. Compensation shall be adjusted for losses.

Compensation -- Minimum payment: If the total amount to be paid by Basin Electric to Black Hills during any calendar year of the ultimate term of this contract is less than $500,000, Basin Electric shall pay Black Hills an additional amount for that calendar year so that Black Hills has received a minimum payment of $500,000 annually during the ultimate term.

Compensation -- Time of payment: Basin Electric shall pay Black Hills monthly within fifteen days of billing for actual energy metered during the billing months less the wheeling charged billed by Black Hills to the Bureau for Bureau power delivered by Black Hills to Rushmore for the same month. On each billing during April and October during the ultimate term, Basin Electric shall pay Black Hills an additional amount, if necessary, so that Black Hills has received the minimum amount up to the date of billing.

Adjustments for transmission and transformation losses: The adjustments for transmission and transformation losses in determining the amount of compensation to be paid by Basin Electric to Black Hills shall be as follows:

(1) With delivery at Wyodak or at Sundance at 230,000 volts, the

compensation shall equal metered kilowatt hours times one mill.

(2) With delivery at any location where the power and energy is metered at 69,000 volts, the compensation shall equal metered kilowatt hours times 1.01 times one mill.

(3) Where electric power and energy is delivered at a lower voltage than 69,000 volts, the compensation shall equal metered kilowatt hours times 1.02 times one mill.

Compensation to be paid for Rushmore Wyoming's first 150,000 KW: The obligation of Rushmore to deliver electric power and Black Hills to furnish transmission service to Rushmore Wyoming is for all of Rushmore Wyoming's energy needs associated with the first 150,000 kilowatts of capacity needed by Rushmore Wyoming during the ultimate term. If, for any reason, during the term of this contract, Rushmore or Rushmore Wyoming should contract power and energy regardless of source over some other contractual transmission path without mutual agreement of the parties for a part or all of the first 150,000 kilowatts of capacity and associated energy required by Rushmore Wyoming, Basin Electric as compensation for the obligations of Black Hills undertaken in this contract, shall still be obligated to pay Black Hills the compensation as set forth herein as if all of Rushmore Wyoming's first 150,000 kilowatts of capacity and associated energy needs were being delivered under the provisions of this contract for the entire term.

Transmission Service Contract between Nebraska Public Power District and Basin Electric Executed April 29, 1977.

---

A) Obligations:

The District shall transmit, through its Bulk Transmission System, power for Basin Electric in the amount of 500 MW from the east side unit of the Laramie River Station. Basin Electric will provide a contribution in aid of construction for this transmission of power.

B) List of all Parties to the Agreement:

Basin Electric, acting as Project Manager and Operating Agent for the Missouri Basin Power Project and on its own behalf, and as agent for the participants of the Project, namely Basin Electric Power Cooperative, Bismarck, North Dakota; City of Lincoln, Nebraska; Heartland Consumers Power District, Madison, South Dakota; Western Minnesota Municipal Power Agency, Ortonville, Minnesota; Tri-State Generation and Transmission Association, Inc., Denver, Colorado; and the Wyoming Municipal Power Agency, Lusk, Wyoming, have entered into this agreement with Nebraska Public Power District.

C) Time Period:

This contract was executed April 29, 1977 and shall continue in force until December 31, 2040.

D) Amount of Electrical Energy and Timing or Rate of Delivery:

The District will receive power for Basin Electric in the amount of 500 MW. If the net capability of the east side unit is in excess of 500 MW, the District agrees to receive such net capability, but in no event shall

the amount of power exceed 550 MW. The District's obligation to transmit power shall commence September 1, 1980. The delivery of power by the District to the Points of Delivery shall be limited to the amount specified in the "Points of Delivery" indicated on page 34.

E) Financial Agreement:

In recognition of the long-term nature of this contract, Basin Electric has agreed to pay a contribution in aid of construction for bulk transmission service which is estimated at $51,591,700. This contribution shall be deemed a credit against the charges for the annual cost of the bulk transmission services.

POINTS OF DELIVERY

One Point of Delivery shall be comprised of the points of interconnection between Nebraska Public Power District and Joint Transmission System for delivery of up to 300 MW*, less losses, to Heartland Consumers Power District, Basin Electric Power Cooperative, and Western Municipal Power Agency:

1. At Hinton, Iowa, where the district's 230 KV Hinton - Twin Church transmission line connects to the USBR Sioux City (Hinton) substation 230 KV bus.

2. At Belden, Nebraska, where the USBR 115 KV Gavins Point - Belden transmission line connects to the District's Belden substation 115 KV bus.

3. At Gavins Point Substation, South Dakota, where the District's 115 KV Gavins Point - Neligh transmission line connects to the USBR Gavins Point substation 115 KV bus.

4. At O'Neill, Nebraska, where the USBR 115 KV Ft. Randall - O'Neill transmission line connects to the District's O'Neill substation 115 KV bus.

5. At Mission, South Dakota, where the District's 115 KV Mission - Valentine transmission line connects to the USBR Mission substation 115 KV bus.

6. At Ft. Randall substation, South Dakota, where the District's 230 KV Ft.

Randall - Columbus transmission line connects to the USBR Ft. Randall substation 230 KV bus.

*Subject to pro rata adjustment based on Article II.

Electric Service Agreement between Basin Electric and United Power Association (UPA) dated January 10, 1968

---

A) Obligations:

This agreement allows Basin Electric and UPA to derive additional benefits from the interconnection of their systems by the purchase, sale or interchange of various classes of power and energy. These include: Breakdown on Emergency Service, Start-up and Maintenance Energy Service, Interchange of Energy, General Purpose Energy, and Temporary Firm Power.

B) List of all the Parties to Agreement:

The Electric Service Agreement was executed between Basin Electric Power Cooperative and United Power Association.

C) Time Period:

The Agreement was executed January 10, 1968 and shall continue in effect until September 24, 1986.

D) Amount of Electrical Energy and Timing or Rate of Delivery:

All deliveries of power and energy by either party are scheduled in advance, emergencies excepted. Each class of power and energy is scheduled according to the needs of day-to-day operation.

E) Financial Agreements:

Each class of service scheduled shall be itemized and accounted for separately. Breakdown on Emergency Service shall be either:

(1) by mutual agreement, returned to the supplier kilowatt hour for kilowatt hour under substantially similar load conditions as when delivered, as scheduled pursuant to Paragraph 1.03, or

(2) paid for at the rate of four mills ($0.004) per kilowatt hour. Start-up maintenance energy service shall be delivered at the rate of four mills ($0.004) per kilowatt hour.

Interchange of energy delivered shall be returned kilowatt hour for kilowatt hour at existing points of interconnection at times and rates scheduled. For settlement purposes, interchange energy has a net value of three mills ($0.003) per kilowatt hours.

General purpose energy shall be at a rate of three mills ($0.003) per kilowatt hour.

Temporary firm power will be negotiated at the time of purchase.

Interconnection Agreement between Basin Electric and United Power Association (UPA) dated September 24, 1966

---

A) Obligations:

Basin Electric and UPA expect benefits through the interconnection of their respective systems by operating in a manner set forth in the agreement. UPA and Basin Electric provide their respective 230 KV substation facilities required to terminate their interconnecting facilities.

B) List of all Parties to the Agreement:

The Interconnection Agreement was executed between UPA and Basin Electric.

C) Time Period:

The agreement was executed September 24, 1966 and shall continue in effect for a period of 20 years.

D) Amount of Electrical energy and Timing or Rate of Delivery or Receipt of Energy: (1) The parties agree to normally operate their steam electric generating plants in the vicinity of Stanton, North Dakota, interconnected. As a result of such interconnected operations, there may be inadvertent flows of power and energy from the system of one party through the system of the other party. Each party agrees that during such periods of inadvertent flow, the input of electric power and energy into the other party's system shall at all times be approximately equal to the amount of electric power and energy withdrawn therefrom.

E) Financial Agreements:

Any unintentional delivery of power and energy by either party to the other shall be returned and balanced out as soon as practicable in accordance with procedures established by the Operating Committee.

Joint Transmission System and Mutual Services Contract between Basin Electric and the U.S. Bureau of Reclamation -- Western Area Power Administration (WAPA)

---

A) Obligations:

This agreement provides the following:

(1) The establishment of a "Missouri Basin Systems Group Pooling Agreement". The MBSG coordinated engineering studies concerning the location, size, time of installation of thermal generating facilities for the purpose of coordinating such installations for the maximum benefit of all the participating systems. The MBSG also conducts annual operational studies to determine if the Joint Transmission Systems is adequate to carry the power requirements of the MBSG for the following three years.

(2) The establishment of a "Joint Transmission System" composed of certain high voltage transmission lines and associated substations. The JTS provides a transmission grid for members of the MBSG so they can receive power and energy generated at they hydroelectric generating plants of the USBR or by electric generating facilities in the area constructed and operated by other parties of the MBSG. At the present time, Basin Electric has the rights to deliver about 2,000,000 KW to our members over the JTS.

(3) Provides for the sale of peaking power to Basin Electric from the hydroelectric generating resources of the USBR.

(4) Provides for 179 MW operating reserves for Basin Electric's Leland

Olds Units No. 1 and 2 from the hydroelectric generating resources of the USBR.

B) List of all parties to agreement:

The contract was executed between Basin Electric Power Cooperative and the U.S. Bureau of Reclamation.

C) Time Period:

The Agreement was executed November 29, 1962 and shall continue in effect until December 31, 2001. Supplements 1, 2, 4, 5, 6 and 7 are in effect until December 31, 2001.

D) Amount of Electrical Energy and Specified Timing or Rate of Delivery of the Energy and Supplement No. 3:

The USBR is obligated under Supplement 3 to provide 280 MW of firm peaking power for each winter season from 1978/79 until the year 2000. All deliveries of peaking power during the winter season shall commence with the November billing period and terminate with the April billing period.

E) Basin Electric currently pays the WAPA approximately $15.99 per KW/year for capacity in the Joint Transmission System for power generated and delivered from Basin Electric's resources for Leland Olds Unit 2 and other resources, and $8.48 per KW/year for capacity rights in the JTS for Leland Olds Unit 1. Basin Electric is currently paying the USBR $8.10 per KW/season for the 280 MW of firm winter peaking power and must return the energy to the USBR at mutually agreeable times.

Basin Electric - Western Area Power Administration Contract for Purchase of Electric Power and Energy by the United States.

---

A. Obligations:

This contract provides for the following:

1) The United States to purchase surplus power and energy from Basin Electric to assist in meeting United States firm power contract commitments.

2) The United States commits to purchase 185 MW of Participation Power from Basin Electric's latest unit at the Antelope Valley Station. Participation Power means capacity and associated energy which is supplied from a specific generating unit on the basis that it is continually available, except when the unit is out of service for maintenance or emergency outage, during which time the delivery of energy shall cease.

3) If, during the period covered by the contract, Basin Electric determines that its all-requirements contractual commitment to its Class A members prevents it from supplying the Participation Power, the seasonal 185 MW commitment shall be revised accordingly.

4) If Basin Electric reduces the 185 MW commitment, then Basin Electric shall provide the United States with Surplus Energy from its system at hourly amounts equal to the lesser of: 1) Basin Electric's available surplus energy during the hour, or 2) the difference between

the energy that the United States requires, which is normally 185 MW, and the reduced seasonal Participation Power commitment.

5) Basin Electric shall deliver the Participation Power less losses to the United States at the west side of the Miles City Converter Station up to an amount equal to Basin Electric's capacity rights in the Miles City Converter Station, which are in excess of Basin Electric's Montana member loads west of the ties. The balance of the Participation Power less losses shall be delivered to the United States at the east side of the Miles City Converter Station.

B. List of all Parties to the Agreement:

The Contract was executed between the United States Department of Energy Western Area Power Administration, and Basin Electric Power Cooperative.

C. Time Period:

Contract sales commences with the completion of transmission facilities necessary for the Western Area Power Administration to transmit power to its customers west of the Miles City Converter Station and extends through the 1990 summer season with an option to extend.

D. Rate of Delivery of Power:

185,000 kilowatts of Participation Power at the Antelope Valley generator bus or up to 185 MW of Participation Power and/or Surplus Energy at the Antelope Valley generator bus and/or other Basin Electric generating station buses.

E. Financial Agreements:

United States shall pay Basin Electric its fixed costs and energy production costs associated with Participation Power purchases from the Antelope Valley Station. Surplus Energy shall be sold at 115% of energy production costs through the summer season of 1987 and 120% of energy production costs thereafter.

Interconnection and Transaction Agreement Respecting Boundary Dam - Logan 230 KV Interconnection between Basin Electric Power Cooperative and Saskatchewan Power Corporation dated April 13, 1978.

---

A) Obligations:

This agreement provides for the construction of a 230 KV transmission line by Basin Electric from Minot, North Dakota (Logan Substation) to the Canadian border and from the Canadian border to Estevan, Saskatchewan (Boundary Dam Substation) by Saskatchewan Power Corporation. The benefit of this agreement is the exchange of peaking capacity on a seasonal basis between Basin Electric Power Cooperative and Saskatchewan Power Corporation.

B) List of all Parties to the Agreement:

The agreement was executed between Basin Electric Power Cooperative and Saskatchewan Power Corporation.

C) Time Period:

This contract commenced April 13, 1978 and terminates April 30, 2000.

D) Amount of Electrical Energy in Megawatts to be Exported and Imported and Timing or Rate of Delivery or Receipt of Energy:

Saskatchewan Power Corporation shall supply to Basin Electric 100 MW of capacity during each summer season commencing with the summer season of 1981 until the termination of the contract. Basin Electric shall supply to Saskatchewan Power Corporation, 100 MW of capacity during each winter season commencing with the 1986/87 winter until the termination of the contract. The energy associated with the above 100 MW capacity exchange

shall be limited to 10 percent monthly load factor. The summer season is defined as May 1 through October 31 of each year and the winter season is defined as November 1 through March 31 of the following year. Additional energy may be exchanged or sold between the utilities as required and as arrangements are worked out on a case-by-case basis.

E) Financial Agreements:

The intent of this agreement is an exchange agreement. Therefore there is no charge when the capacity and energy exchanged is equal. However when a difference occurs the Mid-Continent Area Power Pool (MAPP) floor rate applicable to the sale of peaking power is used to determine the charge for capacity and energy. Billing for other energy exchanged or sold is also determined according to the appropriate MAPP schedule.

Letter agreement for energy sale/purchase between Basin Electric Power Co-operative and Northern States Power Company.

---

a. Obligation:

Agreement provides for the sale of Basin Electric surplus energy to Northern States Power Company.

b. List of all parties to agreement:

The agreement was executed between Northern States Power Company and Basin Electric Power Cooperative.

c. Time period:

The agreement was executed December 11, 1984, and shall continue in effect until January 1, 1986.

d. Amount of electrical energy:

Maximum delivery of 300 MW/Hr. with option to exceed by mutual agreement.

e. Financial agreements:

Energy sold at a negotiated energy rate.

## IV. EFFORTS FOR ENVIRONMENTAL PROTECTION

Efforts to involve environmental protection and land use planning agencies, as well as other efforts to identify and minimize environmental problems at the earliest possible stage in the planning process:

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In accordance with the provisions of the Montana Major Facility Siting Act, Basin Electric is following the prescribed procedures in the planning for potential future electric generating facilities and transmission systems in Montana.

In 1979 and early 1980, Basin Electric representatives conducted an information program in order to ensure that the appropriate state agencies and the general public of Montana were informed of the Cooperative's plans for potential coal-fired generating facilities that may be constructed in Montana in the 1990s. This project is Basin Electric's Sunrise Project.

Representatives of Basin Electric met with those Montana state agencies (see list on page 31) potentially concerned with the siting of a major power facility and distributed copies of a study identifying 25 potential sites in the Midwest for future base-load generation for Basin Electric. Of the 25 potential sites, three were subsequently identified as preferred areas. The site under consideration in Montana is in the Circle area.

Public information meetings as part of the scoping process on the Sunrise Project were held during 1979 and 1980 to allow state agencies and the general public early involvement in the project. Public information meetings are required by regulations of the Council on Environmental Quality (CEQ).

Basin Electric has placed high priority on the region's social and physical environment.

All projects proposed by Basin Electric are accompanied by a detailed impact assessment. Compiled through an open planning process which includes local input, impact assessments identify all impacts which may have an effect on the physical and social environment. Once all potential impacts have been identified, mitigation strategies are developed with regulatory agencies and/or concerned citizen groups.

All of Basin Electric's facilities meet federal and state air and water quality pollution control standards. Since 1977 the Cooperative has been involved in the development of a new dry desulfurization process for coal-fired power plant emissions.

Recognizing the advancement which the Cooperative has made in the area of dry scrubbing, the Environmental Industry Council and the President's Council on Environmental Quality in 1980 presented Basin Electric an Award of Excellence in Air Pollution Control for outstanding technological achievement and leadership in all areas of pollution abatement.

## Sunrise Project Montana Agency Contacts

Department of Fish and Game

Department of Health and Environmental Sciences

Department of State Lands

Environmental Quality Council

Department of Agriculture

Office of Commerce and Small Business Development

Department of Natural Resources and Conservation

Department of Highways

State Historical Society

Department of Community Affairs

Department of Public Service Regulation

Montana Trade Commission

## V. DEMAND

Projections of demand for electricity provided by Basin Electric and explanation of the basis for these projections and a description of the manner and extent to which the proposed facilities will meet the projected demand:

Basin Electric's projected supplemental power supply responsibility to member cooperatives categorized according to state for each of the ensuring 10 years beginning with 1985 is shown in Exhibit A on the following page.

These loads are not categorized according to "sector of demand" as Basin Electric is a wholesale power supplier and therefore does not directly serve retail customers.

## EXHIBIT A -- BASIN ELECTRIC CLASS "A" MEMBER LOADS BY STATE

### Summer Season Peak Demand (MW)

| Year | ND | SD | MN | IA | NE | MT | CO/WY | Total |
|---|---|---|---|---|---|---|---|---|
| 1985 | 279 | 242 | 44 | 61 | 234 | 55 | 229 | 1,144 |
| 1986 | 295 | 250 | 45 | 61 | 246 | 64 | 237 | 1,198 |
| 1987 | 321 | 260 | 47 | 61 | 263 | 77 | 247 | 1,276 |
| 1988 | 342 | 271 | 49 | 62 | 273 | 88 | 254 | 1,339 |
| 1989 | 358 | 282 | 51 | 62 | 284 | 98 | 261 | 1,396 |
| 1990 | 374 | 294 | 53 | 63 | 295 | 108 | 263 | 1,450 |
| 1991 | 390 | 312 | 55 | 64 | 306 | 118 | 273 | 1,518 |
| 1992 | 406 | 324 | 58 | 64 | 316 | 129 | 284 | 1,581 |
| 1993 | 438 | 336 | 60 | 65 | 327 | 141 | 296 | 1,663 |
| 1994 | 455 | 348 | 63 | 65 | 338 | 154 | 308 | 1,731 |

### Winter Season Peak Demand (MW)

| Year | ND | SD | MN | IA | NE | MT | CO/WY | Total |
|---|---|---|---|---|---|---|---|---|
| 1985 | 381 | 281 | 55 | 72 | 52 | 63 | 276 | 1,180 |
| 1986 | 403 | 290 | 57 | 72 | 55 | 72 | 288 | 1,237 |
| 1987 | 439 | 302 | 59 | 73 | 58 | 86 | 300 | 1,317 |
| 1988 | 467 | 315 | 62 | 73 | 68 | 97 | 309 | 1,391 |
| 1989 | 488 | 329 | 65 | 73 | 71 | 107 | 319 | 1,452 |
| 1990 | 511 | 344 | 67 | 74 | 74 | 117 | 324 | 1,511 |
| 1991 | 534 | 360 | 69 | 74 | 77 | 128 | 337 | 1,579 |
| 1992 | 557 | 376 | 72 | 74 | 80 | 139 | 353 | 1,651 |
| 1993 | 594 | 392 | 75 | 75 | 83 | 150 | 368 | 1,737 |
| 1994 | 619 | 407 | 78 | 75 | 86 | 162 | 385 | 1,812 |

### Energy Total (GWh)

| Year | ND | SD | MN | IA | NE | MT | CO/WY | Total |
|---|---|---|---|---|---|---|---|---|
| 1985 | 1,866 | 1,260 | 243 | 330 | 534 | 348 | 1,559 | 6,140 |
| 1986 | 1,978 | 1,317 | 254 | 332 | 561 | 398 | 1,637 | 6,477 |
| 1987 | 2,162 | 1,385 | 267 | 333 | 614 | 476 | 1,717 | 6,954 |
| 1988 | 2,297 | 1,455 | 279 | 335 | 654 | 542 | 1,775 | 7,337 |
| 1989 | 2,404 | 1,530 | 293 | 337 | 680 | 595 | 1,818 | 7,657 |
| 1990 | 2,549 | 1,604 | 307 | 339 | 707 | 650 | 1,853 | 8,009 |
| 1991 | 2,655 | 1,704 | 323 | 341 | 731 | 707 | 1,934 | 8,395 |
| 1992 | 2,781 | 1,781 | 339 | 342 | 756 | 767 | 2,021 | 8,787 |
| 1993 | 2,982 | 1,855 | 354 | 344 | 783 | 832 | 2,112 | 9,262 |
| 1994 | 3,106 | 1,923 | 369 | 346 | 807 | 897 | 2,210 | 9,658 |

## VI. APPLICATION DATES (Rule V)

Basin Electric does not contemplate the construction of any facilities in the State of Montana during the next 10 years; therefore no applications will be submitted.

## XII. FORECASTED ENERGY DEMAND AND SUPPLY (Rule VI)

(1) The future loads are based on forecasts prepared by Basin Electric Member systems. Basin Electric does not have available information on the assumptions employed by the members and can not address the sensitivity of the forecasts to changes in these assumptions. The 118 distribution members of Basin Electric preparing these forecasts have made their projections based on the economics and situations that pertain to their service area. (See also Answer V - Demand.)

(2) The resources available to Basin Electric to serve its members' and other contractual responsibilities are as follows:

a. Leland Olds Generating Station: Leland Olds Unit 1 was placed in service on January 9, 1966, and is a base-load thermal unit located near Stanton, ND, with a net capacity of 217 megawatts. Leland Olds Unit 2 was placed in service on December 15, 1975, with a net capacity of 433 megawatts.

b. Neal Station (ND) The William J. Neal plant near Velva, ND, is a 47 megawatt (net) plant and is used as a load pattern resource. This unit will be placed in standby status commencing April 1, 1985 and continuing until Basin Electric member loads or other contractual commitments require its return to service.

c. Western Area Power Administration (Western) Peaking Capacity:

In 1968, Basin Electric executed along-term contract with the federal government for USBR (now Western) hydro peaking from the dams in the Missouri River Basin. This contract currently provides Basin Electric with 305 megawatts of winter peaking capacity until the contract terminates in 2000. It is expected that this contract will be re-negotiated and extended at that time.

d. Spirit Mound Station: Basin Electric placed two 60 megawatt (net) nameplate oil-fired combustion turbines in service on June 15, 1978. The combined winter rating of the two units is 104 megawatts (net) and the summer rating is 90 megawatts (net). These units have been temporarily derated because of oil/gas u-duct problems. The capacity is intended to be used primarily as reserves or replacement during initial outages of base- load units or during peak load periods when existing base-load units cannot meet the demand. The Spirit Mound Station is located near Vermillion, SD.

e. Laramie River Station: Basin Electric, together with five other consumer-owned power supply entities, began construction in July 1976 of the Laramie River Station near Wheatland, in southeast Wyoming. The station's three 550-megawatt (net) units became fully operational on November 1, 1982. Basin Electric, as Project Manager for the Missouri Basin Power Project (MBPP), was assigned overall responsibility for the design, construction and operation of the power plants and related transmission. Units 2 and 3 of the Laramie River Station are electrically connected to the western system; Unit 1 is electrically connected to the eastern system.

f. Antelope Valley Station: Antelope Valley Unit 1 was placed in service July 1, 1984, and is a base-load thermal unit located near Beulah, ND, with a net capacity of 450 MW. Antelope Valley Unit #2 is an identical unit and is scheduled for commercial generation on June 1, 1986. Basin Electric and ANG Coal Gasification Company have developed contractual agreements wherein Basin Electric will supply approximately 90 megawatts of electric power for the gasification facilities from Antelope Valley Unit #2 commencing with its commercial operation. Basin Electric also has sold 41 MW of participation power from AVS Unit 2 to Montana Dakota Utilities Company. The remaining 769 megawatts during this period would be available for use by Basin Electric to serve its member cooperatives' increasing loads.

g. Saskatchewan Interchange: Basin Electric and the Saskatchewan Power Corporation (SPC) have agreed to the seasonal exchange of power between the two systems, which began in 1982. The Cooperative receives 100 megawatts (net) of peaking capacity and energy during the summer seasons between 1982-1985. The energy associated with the 100 megawatts is returned by Basin Electric during the off-peak hours of each following winter season. Beginning with the 1986 summer season and continuing through the 1999 winter season, Basin Electric will continue to receive 100 megawatts during the summer season and will return an equal amount of peaking capacity to SPC during the winter season.

(3) and (4) No facilities are currently planned for the next 10 years.

## VIII. POOLING, INTERCONNECTION, EXCHANGE, PURCHASE AND SALE AGREEMENTS (Rule VII)

Refer to Answer III -- Regional Coordination Activities.

## IX. NVER RESOURCE ACQUISITION OR SALE, POOL NECTION, TRANSMISSION, EXCHANGE, R SALE OF ENERGY (Rule IX)

Basin Electrnually involved in discussions and negotiations with other and parties. These discussions are confidential and propriet.

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